

Applicant : Vladimir Andreevich Bushuev  
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C<sub>1</sub> 1. (Three Times Amended) A process for producing low-molecular olefins by pyrolysis of hydrocarbons which comprises preheating and evaporating a starting feedstock, mixing the same with a steam diluent, heating a resulting mixture to pyrolysis temperature in a blading rotary reactor, quenching a cracked gas and subsequent separation of it, wherein the said heating the mixture to the pyrolysis temperature is performed by mixing with hot pyrolyzed gas being circulated in a working cavity of the blading rotary reactor.

C<sub>2</sub> 3. (Amended) A reactor for producing low-molecular olefins by pyrolysis of hydrocarbons comprising a housing with directing stationary blades, an inlet nipple for supplying feedstock, an outlet nipple for carrying off cracked gas and a working wheel provided with a blade crown, wherein the said housing has an annular cavity for circulation of hot pyrolyzed gas, which contains the directing stationary blades and surrounds the blade crown of the working wheel along periphery, and the said inlet nipple for supplying feedstock and outlet nipple for carrying off cracked gas are communicated with the said cavity.

Remarks

Entry of the foregoing amendments and reconsideration of the restriction requirement in the Office Action of June 20, 2001 are respectfully requested.

Claims 1-5 were pending. Claims 1 and 3 are being amended. Claims 1-5 remain pending.

In the Office Action of June 20, 2001, the Examiner required